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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,306	12/04/2003	Owais Jamil	TESSERA 3.0-241 DIV	9622
38091	7590	01/09/2006	EXAMINER	
TESSERA LERNER DAVID et al. 600 SOUTH AVENUE WEST WESTFIELD, NJ 07090			NGUYEN, DONGHAI D	
			ART UNIT	PAPER NUMBER
			3729	

DATE MAILED: 01/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/728,306

Applicant(s)

JAMIL, OWAIS

Examiner

Donghai D. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-12 is/are pending in the application.
- 4a) Of the above claim(s) 8-12 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6 and 7 is/are allowed.
- 6) ☒ Claim(s) 1,3 and 4 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claim 1 is rejected under 35 U.S.C. 102(a) as being anticipated by US Patent 6,051,093 to Tsukahara.

Tsukahara discloses a method of making a microelectronic package, comprising: providing a dielectric layer (4); forming a top conductive feature (6) on the top side of the dielectric layer and forming a bottom conductive feature (5) on the bottom side of the dielectric layer; juxtaposing (Fig. 2b) the dielectric layer with at least one microelectronic element (10) having contacts (2 and 3) and bonding the contacts of the microelectronic element with the bottom conductive feature (Fig. 2d); forming a via (8) through the dielectric layer before said bonding step, the via being aligned with the top conductive feature and the bottom conductive

feature (Fig. 2a); and electrically interconnecting the top conductive feature and the bottom conductive feature (Figs. 2a-b) through the via by depositing electrically conductive material (7) in the vias without seeding the vias (Tsukahara does not disclose the hole being seeded).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,222, 136 to Appelt et al in view of US Patent 6,051,093 Tsukahara.

Appelt et al disclose A method of forming a microelectronic package, comprising: providing a dielectric layer (14, see Fig. 2a) with a top side, a bottom side, a top metal layer (12) on the top side, and a bottom metal layer (42) on the bottom side; forming first apertures (36) in the top metal layer and forming vias (41) in the dielectric layer aligned with the first apertures; applying a first resist (24) to the top metal layer (12), applying a second resist (48) to the bottom metal layer and patterning the first resist and second resist the same step to form first openings in the first resist and second openings in the second resist (see Fig. 2e); the first openings leaving uncovered portions the top metal layer surrounding the vias, and the second openings being aligned with the first openings (see Fig. 2e); forming top conductive features from portions of the top metal layer aligned with the first openings and bottom conductive features (pad of via 41) on portions of the bottom metal layer aligned with said second openings (Fig. 2f); except that

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Appelt et al do not disclose juxtaposing the dielectric layer with a microelectronic element and depositing electrically conductive material in the vias without seeding the vias. Tsukahara teach the steps of juxtaposing the dielectric layer (4, see Fig. 1) with a microelectronic element (1) by bonding the bottom conductive features to the contacts (2 and 3) of the microelectronic element (1) and depositing electrically conductive material (7) in the vias (8) without seeding the vias for mounting a microelectronic element to the circuit board at high electric reliability (see Tsukahara Col. 3, lines 38-41). Therefore, it would be obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Appelt et al by utilizing the teaching of Tsukahara as described above as to obtain a microelectronic package with a microelectronic element being mounted to the circuit board at high electric reliability.

***Allowable Subject Matter***

6. Claims 6 and 7 are allowed.
7. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

8. Applicant's arguments with respect to claims 1, 3-4 have been considered but are moot in view of the new ground(s) of rejection.


***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donghai D. Nguyen whose telephone number is (571)-272-4566. The examiner can normally be reached on Monday-Friday (9:00-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter D. Vo can be reached on (571)-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DN  
January 5, 2006

  
**MINH TRINH**  
**PRIMARY EXAMINER**